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2912 Crosby Road
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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/767,057	Applicant(s) MURSCHALL ET AL.	
	Examiner Lawrence D Ferguson	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed February 19, 2004.
Claims 1 was amended and claims 19-20 were added rendering claims 1, 3-16 and 19-20 pending, with claims 17-18 withdrawn as a non-elected invention.

Objection

2. Claim 15 objected to because of the following informalities: The phrase, "wherein the outer layers barium sulfate, flame retardant and optical brightener" appears to be improper. Examiner suggests changing claim 15 to read "wherein the outer layers comprises barium sulfate, flame retardant and optical brightener." Appropriate correction is required.

Obvious Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4-10 and 16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 4-9, 11 and 19 of copending Application No. U.S. 10/084028. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both include a white film with a thickness of from 10 to 500um, wherein the film comprises crystallizable thermoplastic selected from the group consisting of polyethylene terephthalate, polybutylene terephthalate and polyethylene naphthalate as the main constituent with at least one optical brightener, a flame retardant, UV stabilizer and a soluble blue dye with other additives.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections – 35 USC § 103(a)

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-7, 9, 12-16 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. 5,660,931).

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Kim shows a white film (core layer) having a polyester comprising polyethylene terephthalate (crystallizable thermoplastic) (column 3, lines 61-63), barium sulfate (column 1, line 61 through column 2, line 5), and bisbenzoazole (optical brightener) (column 5, lines 13-22) where the barium sulfate comprises 0.1 to 15 parts of weight, meeting the limitation of instant claim 3. In claims 3, 4, 6 and 20 the phrases, "barium sulfate is fed to the thermoplastic by way of masterbatch technology," "optical brightener is fed to the thermoplastic by way of masterbatch technology during film production," "UV stabilizer is fed to the thermoplastic as a masterbatch during film production" and "masterbatch that has been at least one of either (i) predried or (ii) precrystallized" introduce process limitations to the product claims. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims. Kim shows that the white film has a thickness of 12 micrometers (column 9, lines 11-16). The reference shows the film comprises polyester, has hiding power (opacity), a thermal stabilizer (column 2, lines 22-28), a coating (column 2, lines 37-45 and column 3, lines 1-4) and alkali earth material (column 2, lines 35-45). Kim further shows the thermal stabilizer prevents thermal decomposition as well as increases heat resistance (flame retardant) (column 6, lines 29-35) and the stabilizer consists of 2-hydroxybenzophenone (column 6, lines 49-58). Though Kim shows that the bisbenzoazole is added in an amount so that the reflectivity at 440 nm becomes

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greater than 75% (column 5, lines 21-22), Kim does not show that the bisbenzazole is 10-50,000 ppm of the weight of the crystallizable thermoplastic as in instant claim 4. Kim does not show the percentage by weights as in instant claims 6 and 7. However, such concentrations and percentages by weight are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the concentrations and percentages by weight, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. concentrations and percentages by weight) fails to render claims patentable in the absence of unexpected results. (See *In re Boesch and Slaney*, 205 USPQ 215).

Claim Rejections – 35 USC § 103(a)

6. Claims 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. 5,660,931) in view of von Meer (U.S. 4,384,040).

Kim is relied upon as above for claim 1. Kim does not show the blue dye and amount of blue dye as in instant claim 6. However, the amount of blue dye is a property which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the amount of blue dye, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize

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operation conditions (e.g. amount of dye) fails to render claims patentable in the absence of unexpected results. (See *In re Boesch and Slaney*, 205 USPQ 215).

All of the aforementioned limitations are result effective as they control the degree of whiteness of the film. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art to make the film recording sheet with the limitations of the percentages and ranges) since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 198). Von Meer shows a photographic paper wherein the white titanium dioxide pigmented paper is dyed with cobalt blue or ultramarine (column 3, line 68 to column 4, line 25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to cobalt blue or ultramarine in addition to the whitening titanium dioxide because cobalt blue and ultramarine are conventionally used to enhance the whiteness and to reduce the yellowish tint of the invention.

Claim Rejections – 35 USC § 103(a)

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. 5,660,931) in view of Asai et al. (U.S. 5,178,943).

Kim is relied upon as above for claim 1. Kim further shows that the average diameter for the barium sulfate particles is from 0.1 to 0.5 micrometers (column 5, lines 10-12). Kim does not specifically show that the barium sulfate is in the form of one-particle powder or that it is colorless as in instant claim 11. However, since the average diameter for the barium sulfate particles is from 0.1 to 0.5 micrometers, it would be

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known to one of ordinary skill that a particle having this diameter is in fine-particle powder form. Further, barium sulfate is known to be white, which also means colorless.

Kim does not show that the barium sulfate is precipitated as in instant claim 7.

Asai teaches a white film having polyesters in the form of polyethylene terephthalate (column 1, lines 4-11) and also comprising precipitated barium sulfate (column 3, lines 20-30 and column 7, lines 17-21). It would have been obvious to one of ordinary skill in the art to use precipitated barium sulfate in the invention of Kim because precipitated barium sulfate is effectively used for imparting whiteness to polyethylene laminates.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rutter et al. (U.S. 6,270,888) shows a polymeric film, such as polyethylene terephthalate (column 2, lines 20-24) comprising a UV absorber (claim 1).

Response to Arguments

9. Rejection made under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification has been withdrawn due to Applicant canceling the phrase "polyolefin free". Additionally, the objection to instant claim 1 is withdrawn due to Applicant canceling the phrase "polyolefin free".

Rejection made under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. 5,660,931) in view of Srinivasan (U.S. 6,309,987) is withdrawn; however claims 1, 3-7, 9, 12-16 and 20 remain unpatentable under Kim et al. Applicant argues Kim does

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not teach or suggest the claim invention because it requires the presence of both polyolefin and polyester. Examiner is not persuaded by this argument. Independent claim 1 states "An opaque white film with a thickness of from 10 to 500um, wherein the film comprises a crystallizable thermoplastic consisting of polyester...". Applicant limits the crystallizable thermoplastic to polyester; however the film may include polyolefin because Applicant claims the opaque white film comprises..., which is an open statement, meaning the film is not solely limited to the polyester. The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclusion of unspecified ingredients even in major amounts"). Applicant argues Kim does not teach incorporating predried and/or precrystallized flame retardant masterbatch. The claim limitation of "masterbatch that has been at least one of either (i) predried or (ii) precrystallized" introduces process limitations to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art,

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the claim is unpatentable even though the prior product was made by a different process.” In *re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims. Applicant argues Srinivasan does not cure the deficiencies within Kim. This argument is moot because Srinivasan has been withdrawn.

Applicant further argues Kim does not teach the recited beneficial combination of barium sulfate, at least one UV stabilizer, at least one flame retardant and at least one optical brightener. This is not true because Kim shows a white film (core layer) having a polyester comprising polyethylene terephthalate (crystallizable thermoplastic) (column 3, lines 61-63), barium sulfate (column 1, line 61 through column 2, line 5), and bisbenzoazole (optical brightener). Kim further shows the thermal stabilizer prevents thermal decomposition as well as increases heat resistance (flame retardant) (column 6, lines 29-35). Applicant argues Kim does not teach the beneficial yellowness properties as recited in claim 19. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Kim et al. (U.S. 5,660,931) in view of von Meer (U.S. 4,384,040) suggests it would have been obvious to one of ordinary skill in the art at the time the invention was made to cobalt blue or ultramarine in addition to the whitening titanium dioxide because cobalt blue and ultramarine are conventionally used to enhance the whiteness and to reduce the yellowish tint of the invention.

Arguments regarding Tono et al. (U.S. 6,410,122) are moot because the reference has been withdrawn due to Applicants arguments stating Tono lacked a polyester consisting of polyethylene terephthalate. In response to applicant's argument that Von Meer does not teach crystallizable thermoplastic consisting of polyester, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Von Meer is present to teach the conventionality of incorporating blue dye in a white film. Applicant's arguments regarding Yamazaki (U.S. 6,106,924) are moot because the reference has been withdrawn due to Applicants arguments stating Yamazaki lacked a polyethylene terephthalate.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lawrence D. Ferguson
Examiner
Art Unit 1774

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